DOCUMENT RESUME

ED 305 942 JC 890 161

AUTHOR Vorp, Ron
TITLE Correspondence between the Florida Multiple Assessment Programs and Services (MAPS) and the Scholastic Aptitude Tests (SAT) at Miami-Dade Community College Based on Students Who Wrote Both Tests. Research Report No. 87-21.
INSTITUTION Miami-Dade Community Coll., Fla. Office of Institutional Research.
PUB DATE May 87
NOTE 26p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Standards; *College Entrance Examinations; Community Colleges; Comparative Analysis; *Cutting Scores; Mathematics Tests; *State Standards; Student Placement; *Test Validity; Two Year Colleges; Verbal Tests
IDENTIFIERS *Multiple Assessment Programs and Services; *Scholastic Aptitude Test

ABSTRACT

A study was conducted at Miami-Dade Community College (MDCC) to determine the comparability of the two tests used in Florida to assess students' entry-level skills, the Florida Multiple Assessment Programs and Services (MAPS) battery and the Scholastic Aptitude Test (SAT). The study also sought to determine the effect of altering SAT cutoff scores at MDCC in accordance with state guidelines. The MAPS and SAT scores of students who had taken both tests were analyzed. For the most part, these students' combined math and verbal scores on the SAT were not sufficiently high by MDCC standards to exempt them from taking the MAPS for course placement. Study findings, based on the scores of 4,718 students, included the following: (1) of the 1,976 students whose scores on the verbal section of the SAT met the minimum state requirement, only 12.6% failed to meet the minimum MAPS reading score required to enter college-level courses; (2) of the 2,742 students identified by the verbal section of the SAT as needing college preparatory courses, 47.3% were not so identified by the MAPS reading subtest; and (3) of the 3,251 students who failed to reach the state cutoff score for college-level skills on the SAT math test, 37.4% were identified as needing remedial math courses by the MAPS and 62.6% were placed by the MAPS in college-level math courses. Based on study findings, it was concluded that it was easier for students to achieve the minimum MAPS scores than the minimum SAT scores, leading to the recommendation that either the SAT minimum scores be lowered or the MAPS scores raised to reduce the disparity between the two tests. (ALB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED305942

CORRESPONDENCE BETWEEN THE FLORIDA MULTIPLE ASSESSMENT PROGRAMS AND SERVICES (MAPS) AND THE SCHOLASTIC APTITUDE TESTS (SAT) AT MIAMI-DADE COMMUNITY COLLEGE BASED ON STUDENTS WHO WROTE BOTH TESTS

Research Report No. 87-21

May 1987

Ron Vorp

Research Associate

OFFICE OF INSTITUTIONAL RESEARCH

John Losak, Dean

JC 890 161

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R. Vorp

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U S DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests

Within the last decade, there has been a growing concern in the educational community over the perception of the lowering of academic standards (National Commission on Excellence in Education [NCEE], 1983; Study Group on the Conditions of Excellence in American Higher Education, 1984). These perceptions have as their basis reports of declines in scores on the Scholastic Aptitude Test (SAT) and other measures of achievement of high school students and students graduating college (Advisory Panel on the Scholastic Aptitude Test Score Decline, 1977; NCEE, 1983). At the community college level, this is sometimes seen as the result of an open door policy permitting academically underprepared students to attempt to further their education (Cross, 1983). This has caused institutions to redirect resources toward these students, which reduces the resources available for college level work. This in turn produces "a continued spiraling backwards over the syllabus for the benefit of the slowest third of the class" and possibly reducing the quality of the education a student receives in order to obtain a degree (Trow, 1983).

In more recent years, there have been recommendations made for improving the quality of education at the postsecondary level while at the same time maintaining the open door policy (Cross, 1983; McCabe, 1983; Boyer, 1985). One of these is the assessment of basic skills of incoming students and offering of college preparatory courses for those identified as being deficient. In order to insure this assessment is accomplished and that it is accomplished in a uniform way, some states, including Florida, have set guidelines for schools within the state system as to which tests and which scores will be used to require college preparatory work of new students (United States Department of Education [USDE], 1984).

At Miami-Dade Community College (M-DCC) and throughout the State of Florida, two of the tests that are considered acceptable for student assessment are the Florida Multiple Assessment Programs and Services (MAPS) battery and the Scholastic Aptitude Test (SAT). The Florida MAPS consists of four subtests, Reading Comprehension, Test of Standard Written English (TSWE), Elementary Algebra and Arithmetic Skills. The SAT consists of the TSWE, Mathematics portion and Verbal Portion. The Florida MAPS has been the primary test battery at M-DCC, but a minimum SAT composite score of 900 exempted students from taking the Florida MAPS. In order to be congruent with State guidelines, M-DCC, effective Fall Term 1987, will use the individual SAT cutscores set by the State.

This proposal has again raised the issue of lowering standards. The changing of the SAT scores might allow more incoming students to avoid taking the Florida MAPS. It is possible that some would avoid college preparatory work when it was, in fact, warranted on the basis of the Florida MAPS. Therefore, the present study was undertaken to determine the comparability of the two tests and the impact of switching to the State SAT criteria.

The data used are the SAT and Florida MAPS scores of students who have taken both. Students have both scores primarily when they take the SAT prior to applying to M-DCC and do not obtain the minimum score needed to exempt them from the Florida MAPS. They are then required to take the Florida MAPS for course placement purposes, either college level or varying levels of college preparatory depending on the scores obtained on the individual subtests.

The scores used to determine which students are required to take college preparatory courses based on the Florida MAPS subtests (less than 206 Algebra, less than 12 Reading), and which students meet the State criteria on the SAT (340 Verbal, 400 Math), are those set by the Florida State Board of Education (Florida Statute, 1984). These scores have been designated for use in all State universities and community colleges. The State sets no cutscore on the Arithmetic Skills sub-section of the Florida MAPS, using only Elementary Algebra for mathematics skills assessment. The

Test of Standard Written English, along with identical cutscore, is used as the writing sub-section of both tests Therefore the latter two subtests were not considered in this report.

SAT Verbal vs. Florida MAPS Reading

Figure 1 shows the breakdown of students' performance on the Florida MAPS Reading section and the SAT Verbal section for 4,718 students who were required to take the Florida MAPS based on a SAT combined score of under 900. These students are all those listed on the college's master test computer file as having scores on both tests. The Florida MAPS scores used are from the time the battery was first implemented at M-DCC for the Winter Term of the 1984-85 academic year until the present. In over 50% of the cases, the two tests were taken within one year of each other and in over 90% they were taken within two years of each other. As indicated, 1,976 (41.9%) have scores on the Verbal section which meet the minimum state requirement of 340. Of this group, 1,726 (87.4%) also met the minimum Florida MAPS Reading score of 12 required to enter college level courses without registering for college preparatory courses. The two assessment methods were thus in agreement for this group. The remaining 250 students (12.6%) who met the State requirement on the the Verbal portion of the SAT failed to meet the minimum requirement on the Florida MAPS. Thus, using the Florida MAPS Reading score as the criterion, the SAT failed to identify this group which required college preparatory coursework. Failure to identify members of a group which an assessment method is seeking to identify is known as Type I error.

Of those scoring below a combined 900 on the SAT, the remaining 2,742 (58.1%) failed to meet the State criterion of 340 on the Verbal portion. Within this group, 1,444 (52.7%) also scored below a 12 on the Florida MAPS Reading subtest. The two tests were in agreement for this subgroup. The remaining 1,298 (47.3%) of those identified as requiring college preparatory courses by the SAT Verbal portion were not so designated by the Florida MAPS. Incorrectly (again using the Florida MAPS scores

as the criteria) identifying people as belonging to a group who actually do not, is known as Type II error.

Of the four final sub-groupings in Figure 1, it can be seen that for the two on the left (1,726 and 1,444) the two assessment methods were in agreement while for the two on the right (250 and 1,298) the two methods were in disagreement. Furthermore, it can be seen that there is disparity between the rates at which the disagreements occurred. The rate at which Type I errors occurred was 12.6% while the Type II error rate was approximately 3 times as great, 47.3%. This means that of every 100 students who score below the criterion of 340 on the SAT Verbal approximately 47 would score at or above the criterion of 12 on the Florida MAPS Reading.

Figures 2-5 show similar data broken down according to the four M-DCC campuses. However, the data base for these figures consists of all students with both sets of test scores enrolling in college for the first time in Fall of 1986. Table 2 is for North campus and is based on scores of 336 students, 13.8% of all first-time-in-college students for that semester. Of these 336, 121 (36.0%) have SAT Verbal scores which meet the minimum State requirement of 340. The percentages of agreement with the Florida MAPS Reading subtest for this group is within one percentage point of those based on the entire file, 86.8% agreement and 13.2%. disagreement (Type I error).

For the group of 360 (51.1%) students who did not meet the State requirement of 340 minimum on the SAT Verbal portion, the percentages of agreement/disagreement differed slightly more than in the total. In this case, there was agreement based on the two assessment techniques that 173 (48.1%) students required college preparatory courses. The remaining 187 (51.9%) of those classified as requiring college preparatory work based on SAT scores were classified as not requiring them on the basis of their Florida MAPS Reading scores (Type II error).

Figure 3 shows results of the comparison between the assessment methods for 704 South Campus students. In this case the 740 students with

both SAT and Florida MAPS scores constituted a slightly larger proportion of first-time-in-college students, 18.4%. Within this group, 344 (48.9%) had SAT Verbal scores meeting the 340 minimum requirement set by the State for not enrolling in college preparatory courses. For this group, classification based on the Florida MAPS agreed with the SAT based classification for 319 (92.7%) of the students. This leaves 25 (7.3%) of these students incorrectly identified as requiring college preparatory according to the Florida MAPS Reading criterion (Type I error).

For the 360 (51.1%) of South Campus students requiring college preparatory courses according to the SAT Verbal based classification, slightly less than half, 173 or 48.1%, were classified the same on the basis of their Florida MAPS Reading scores. The other half, 187 or 51.9%, of these students were eligible to register directly into college level courses based on the Florida MAPS Reading score.

Figure 4 shows correspondence between the two assessment techniques based on 26 students at the Wolfson Campus with both sets of scores. In this case these students only comprise 2.2% of all first-time-in-college students for the Fall 1986 semester. With the small percentages in relation to the previously discussed campuses, it should not be surprising to find that these numbers and percent ages will deviate more from the overall statistics presented in Figure 1. In addition, due to the small absolute numbers present in this group, the percentages within this group will be much more sensitive to shifts of a few individuals. However, the patterns observed remain the same as previously discussed. Of these 26 individuals, 8 (30.8%) have SAT Verbal scores which could exempt them from college preparatory courses according to State SAT criteria. Classification for 7 of these 8 (87.5%) was the same according to the State Florida MAPS criterion while the remaining 1 was required to register for college preparatory courses. Of the 18 (69.2%) students identified on the basis of the SAT Verbal score as requiring college-preparatory courses, 6 (33.3%) were not so classified on the basis of the Florida MAPS. The remaining two thirds were required to register for college preparatory classes under either method.

Figure 5 is for students at the Medical Campus enrolling in college for the first time in Fall, 1986. There were only 4 students with both sets of scores and they in turn only constituted 1.3% of all first-time enrollees. Of these 4, 3 were required to take college preparatory courses when assessed by either method, while the remaining one was exempt by either method. For these students, there were no disagreements between classifications based on the two assessment methods.

Based on the numbers presented in the first 3 figures, it can be seen that of those students who were identified as not requiring college preparatory courses by the State criterion on the SAT Verbal portion, approximately 90% were also identified as such based on their Florida MAPS Reading scores. On the other hand, of those who would be required to take college preparatory courses based on the State minimum of 340, about half were exempt according to the Florida MAPS. Thus if an applicant took the SAT and scored above the minimum Verbal the probability of scoring well on the Florida MAPS was very high, while if scoring low on the SAT, the probability of scoring well on the Florida MAPS Reading was still at least 50/50. Therefore it appears that an applicant has a better chance of being exempted from college preparatory coursework based on the Florida MAPS Reading sub-section than on the SAT Verbal portion.

This same conclusion can be reached by examining the error rates presented. According to the data at hand the rate of Type I errors is about 10% while that of Type II errors is about 50%. This disparity in error rates comes about as the result of one form of assessment, the Florida MAPS, being less likely to identify a student as requiring college preparatory courses. Thus, the error rate could be reduced by either lowering the minimum score on the SAT Verbal or by raising the minimum on the Florida MAPS Reading.

Presently, M-DCC also recommends that individuals in the range of 12-14 on the Florida MAPS Reading sub-section enroll in REA 1105. Figure 6 shows the respective error rates based on including this range of scores with the scores requiring college preparatory courses. Examination of the two types of errors presented under these conditions shows that the two

types of errors balance out almost exactly (25.3% vs. 25.8%). It should also be noted that there is a trade-off in the type of error occurring, a lowering of the rate of Type II but a corresponding increase in Type I. The same effect would continue with a further increase and the opposite effect would occur with a decrease in the minimum Florida MAPS Reading score. Lowering or raising the minimum SAT score would have the errors rates move in the opposite direction.

SAT Math vs. Florida MAPS Algebra

The following section shows results of the same type of comparisons between the SAT Math scores and the Florida MAPS Algebra sections. Again, these comparisons are based on students scoring below M-DCC's requirement of 900+ on the combined Math and Verbal sections of the SAT. The minimum scores which do not require college preparatory courses by State criterion are 400 on the SAT Math and 206 on the Florida MAPS Algebra.

Figure 7 shows the comparisons based on the entire file of students with both scores. Of the 4,718 students, 1,467 (31.1%) scored at or above the State criterion of 400 on the SAT. Of these 1,354 (92.3%) also scored at or above the minimum of 206 on the Florida MAPS Algebra and were eligible for direct entry into college level math according to either test. 113 were not eligible based on the Florida MAPS Algebra score for a Type I error rate of 7.7%.

Of the total group with both sets of scores, the other 3,251 (68.9%) failed to reach the minimum of 400 on the SAT Math. Of this group, there was agreement based on either assessment method for 1,217 (37.4%) that these students be required to take college preparatory math classes. The remaining 2,034 (62.6%) students were not identified as requiring college preparatory math based on the Florida MAPS Algebra, a 62.6% Type II error rate. This means that for every 100 students scoring below the criterion of 400 on the SAT Math, approximately 62 would score at or above the criterion of 206 on the Florida MAPS Algebra sub-section.

As with the comparisons in the previous section, the results for first-time-in-college students at North Campus (Figure 8) again closely resemble the overall results. The analysis based on the 336 sets of scores for these students show that 93 (27.7%) qualified for college level math based on SAT Math scores and of these, 83 (89.2%) also qualified based on Florida MAPS Reading scores. 10 (10.8%) of these students' scores did not reach the minimum on the Florida MAPS Algebra.

Of the 243 (72.3%) students who did not reach the minimum score of 400 on the SAT Math, 104 also did not reach the minimum on the Florida MAPS Algebra for a 42.8% agreement rate. The Type II error rate for this group was 57.2%, meaning there was disagreement between the two methods on whether 139 students should take college preparatory math.

Results for Fall 1986 for South Campus test scores are shown in Figure 9. Of the 18.4 percent of first-time-in-college students for this semester who had taken both tests, 262 (37.2%) have Math scores above 400 and would qualify for college level work based on the SAT score. 255 (97.3%) were also eligible based on the Florida MAPS score. The remaining 7 (2.7%) were required to take college preparatory courses based on their Florida MAPS Algebra score.

Of the 442 (62.8%) students with SAT Math scores below 400, only 127 (28.7%) also scored below the minimum on the Florida MAPS Algebra. There was disagreement according to which score was used for 315 students, a 71.3% Type II error rate.

Figure 10 for Wolfson Campus shows that of the 26 first-time-in-college students with both sets of scores in Fall 1986, only 3 (11.5%) qualified for college level math based on the SAT score and these also did based on the Florida MAPS. Of the 23 (88.5%) students scoring below 400 on the SAT Math section, 11 (47.8%) also scored below on the Florida MAPS Algebra subtest. The remaining 12 (52.2%) scored at or above 206 on the Florida MAPS Algebra subtest.

Figure 11 shows results for the Medical Campus for Fall 1986. Of the 4 (1.3%) first-time-in-college students with Florida MAPS and SAT scores, nobody qualified for entry directly into college level math using the minimum for the SAT. Using the Florida MAPS Algebra as the basis for assessment, 1 person was permitted.

As with the SAT Verbal vs. the Florida MAPS Reading tests, there is considerable disparity between the SAT Math and the Florida MAPS Algebra for those scoring low on the SAT. In the evaluation of math competency, this disparity is even greater. However, M-DCC also has recommended levels for persons in a given range above the Florida MAPS Algebra minimum. In this case the recommendation is that students scoring in the 206-209 range begin with MAT 0024. Results of the comparison using this as a cutpoint are given in Figure 12. As can be noted by comparing the two rightmost groupings, there is still considerable disparity between the two types of error rates, 17.1% vs. 42.6%. Even with this score, the Florida MAPS still allows a greater number of students to enroll directly into college level math than would be permitted under the SAT cutscore of 400. To balance out the two types of errors would require that the SAT scores be lowered or the Florida MAPS minimum to be raised even further.

Figure 13 show the results of raising the Florida MAPS Algebra minimum to a point which would most evenly balance out the two types of error rates, 212. At this score the error rates would equal 23.4% and 32.6%. (Raising the score to 213 reverses the two rates).

Summary and Conclusions

Having students take the Florida MAPS when their SAT scores fall below the minimum set by the State, and using the Florida MAPS as the final criteria, will mean that approximately 50% of these students will be permitted to enroll directly into college level courses. Thus it appears that it will be easier for a student to achieve the minimum Florida MAPS score than the minimum SAT score. This is true although the State guidelines appear to be lower than the current M-DCC guidelines. (Because the current

M-DCC guideline uses a combined Verbal-Math score, it cannot be readily assumed that the State guidelines are actually lower. That would require a different type of comparison). This indicates that when using the State guidelines there is a clear disparity between the two tests in assigning students to college preparatory courses. This could be reduced by either lowering the minimum scores on the SAT or raising the Florida MAPS scores. This appears to be an issue which should be reviewed by the State committee assigned by the Commissioner of Education to study entry level testing.

Although balancing the error rates was used for examples in this report, it should be kept in mind that this is not always the most desirable course of action. It is also possible to decide if one type of error will be more or less costly in any sense than the other. For instance, having underprepared students in college level courses is certainly not desirable, but to err in the other direction means having overqualified students taking college preparatory courses. This may cause boredom and frustration, will increase the time and cost required for their education and may actually cause the instructors in these courses to increase the level of the classroom material beyond what is needed for students who truly need the preparatory courses.

Another alternative would be to conduct further investigation in order to determine if one or the other assessment instruments serves the purpose better. In the range of scores in question, there should be data available on performance both in college preparatory and in college level courses. Students' performance in either or both of these could be evaluated as a function of their test scores. Since the purpose of the assessment is to determine if a student is adequately prepared for college level coursework, it may be more appropriate to give more weight to this outcome measure. If one or the other instruments is found to be a better predictor of performance, it would seem reasonable to err in favor of that instrument.

Figure 1

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests

Verbal Section

Total Number on
File With SAT Scores
Under 900 =

4718

Of all of these

1976 (41.9%)

have Verbal Scores above 340.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

1726 (87.4%) of these students would be eligible for college level courses based on their MAPS Reading scores. These would be accurately placed under the State SAT criteria.

250 (12.6%) of these would not be eligible for college level work based on their MAPS Reading Scores. These would be inaccurately placed under the State SAT criteria.

2742 (58.1%) of the total have
SAT Verbal scores under 340.
These students would not be eligible for
college level coursework under the State SAT criteria.

Of these, 1444 (52.7%) would not be eligible for college level courses based on their MAPS Reading score. They would be accurately placed based on the SAT.

1298 (47.3%) of these would be eligible for college level courses based on their MAPS Reading scores. These would be inaccurately placed based on the SAT.

Figure 2

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
First time in College Fall 1986

North Campus

Verbal Section

Total Number on
File With SAT Scores
Under 900 =

336
(13.8% of all First-time in College)

Of all of these

121 (36.0%)

have Verbal Scores above 340.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

105 (86.8%) of these students would be eligible for college level courses based on their MAPS Reading scores. These would be accurately placed under the State SAT criteria.

16 (13.2%) of these would not be eligible for college level work based on their MAPS Reading Scores. These would be inaccurately placed under the State SAT criteria.

215 (64.0%) of the total have
SAT Verbal scores under 340.
These students would not be eligible for
college level coursework under the State SAT criteria.

Of these, 122 (56.7%) would not be eligible for college level courses based on their MAPS Reading score. They would be accurately placed based on the SAT.

94 (43.3%) of these would be eligible for college level courses based on their MAPS Reading scores. These would be inaccurately placed based on the SAT.

Figure 3

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
First time in College Fall 1986

South Campus

Verbal Section

Total Number on
File With SAT Scores
Under 900 =

704
(18.4% of all First-time in College)

|
|
v

Of all of these

344 (48.9%)

have Verbal Scores above 340.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

| |
| |
| |
v v

319 (92.7%) of these students would be eligible for college level courses based on their MAPS Reading scores. These would be accurately placed under the State SAT criteria.

25 (7.3%) of these would not be eligible for college level work based on their MAPS Reading Scores. These would be inaccurately placed under the State SAT criteria.

360 (51.1%) of the total have
SAT Verbal scores under 340.
These students would not be eligible for
college level coursework under the State SAT criteria.

| |
| |
v v

Of these, 173 (48.1%) would not be eligible for college level courses based on their MAPS Reading score. They would be accurately placed based on the SAT.

187 (51.9%) of these would be eligible for college level courses based on their MAPS Reading scores. These would be inaccurately placed based on the SAT.

Figure 4

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
First time in College Fall 1986

Wolfson Campus

Verbal Section

Total Number on
File With SAT Scores
Under 900 =

26
(2.2% of all First-time in College)

Of all of these

8 (30.8%)

have Verbal Scores above 340.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

7 (87.5%) of these students would be eligible for college level courses based on their MAPS Reading scores. These would be accurately placed under the State SAT criteria.

1 (12.5%) of these would not be eligible for college level work based on their MAPS Reading Scores. These would be inaccurately placed under the State SAT criteria.

18 (69.2%) of the total have
SAT Verbal scores under 340.
These students would not be eligible for
college level coursework under the State SAT criteria.

Of these, 12 (67.7%) would not be eligible for college level courses based on their MAPS Reading score. They would be accurately placed based on the SAT.

6 (33.3%) of these would be eligible for college level courses based on their MAPS Reading scores. These would be inaccurately placed based on the SAT.

Figure 5

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
First time in College Fall 1986

Medical Campus

Verbal Section

Total Number on
File With SAT Scores
Under 900 =

4
(1.3% of all First-time in College)

|
|
v

Of all of these

1 (25.0%)

has a Verbal Score above 340.
This student would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

| |
| |
| |
v v

This student would be eligible for college level courses based on the MAPS Reading score and would be accurately placed under the State SAT criteria.

0 of these would be not eligible for college level work based on the MAPS Reading Scores. There would be no inaccurately placed students under the State SAT criteria.

3 (75.0%) of the total have
SAT Verbal scores under 340.
These students would not be eligible for
college level coursework under the State SAT criteria.

| |
| |
v v

Of these, 3 (100%) would not be eligible for college level courses based on their MAPS Reading score. They would be accurately placed based on the SAT.

0 of these would be eligible for college level courses based on their MAPS Reading scores. There would be no inaccurately placed students based on the SAT.

Figure 6

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
(Hypothetical Data Based on Current MDCC Recommendations)

Verbal Section
(Less Than 15 on MAPS Reading)

Total Number on
File With SAT Scores
Under 900 =

4726

Of all of these

1980 (41.9%)

have Verbal Scores above 340.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

1479 (74.7%) of these students would be eligible for college level courses based on their MAPS Reading scores. These would be accurately placed under the State SAT criteria.

501(25.3%) of these would not be eligible for college level work based on their MAPS Reading Scores. These would be inaccurately placed under the State SAT criteria.

2742 (58.1%) of the total have
SAT Verbal scores under 340.
These students would not be eligible for
college level coursework under the State SAT criteria.

Of these, 2038 (74.2%) would not be eligible for college level courses based on their MAPS Reading score. They would be accurately placed based on the SAT.

708 (25.8%) of these would be eligible for college level courses based on their MAPS Reading scores. These would be inaccurately placed based on the SAT.

Figure 7

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests

Math Section

Total Number on
File With SAT Scores
Under 900 =

4718

Of all of these

1467 (31.1%)

have Math Scores above 400.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

1354 (92.3%) of these students would be eligible for college level courses based on their MAPS Algebra scores. These would be accurately placed under the State SAT criteria.

113 (7.7%) of these would not be eligible for college level work based on their MAPS Algebra Scores. These would be inaccurately placed under the State SAT criteria.

3251 (68.9%) of the total have
SAT Math scores under 400.
These students would not be eligible for
college level coursework under the State SAT criteria.

Of these, 1217 (37.4%) would not be eligible for college level courses based on their MAPS Algebra score. They would be accurately placed based on the SAT. ould be accurately placed under the State SAT criteria.

2034 (62.6%) of these would be eligible for college level courses based on their MAPS Algebra scores. These would be inaccurately placed based on the SAT.
under the State SAT criteria.

Figure 8

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
First Time in College Fall 1986
North Campus

Math Section

Total Number on
File With SAT Scores
Under 900 =

336
(13.8% of all First-time in College)

|
|
v

Of all of these

93 (27.7%)

have Math Scores above 400.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

| |
| |
| |
v v

83 (89.2%) of these students would be eligible for college level courses based on their MAPS Algebra scores. These would be accurately placed under the State SAT criteria.

10 (10.8%) of these would not be eligible for college level work based on their MAPS Algebra Scores. These would be inaccurately placed under the State SAT criteria.

243 (72.3%) of the total have
SAT Math scores under 400.
These students would not be eligible for
college level coursework under the State SAT criteria.

| |
| |
v v

Of these, 104 (42.8%) would not be eligible for college level courses based on their MAPS Algebra score. They would be accurately placed based on the SAT.

139 (57.2%) of these would be eligible for college level courses based on their MAPS Algebra scores. These would be inaccurately placed based on the SAT.

Figure 9

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
First Time in College Fall 1986

South Campus

Math Section

Total Number on
File With SAT Scores
Under 900 =

704
(18.4% of all First-time in College)

|
|
v

Of all of these

262 (37.2%)

have Math Scores above 400.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

v	v
255 (97.3%) of these students would be eligible for college level courses based on their MAPS Algebra scores. These would be accurately placed under the State SAT criteria.	7 (2.7%) of these would not be eligible for college level work based on their MAPS Algebra Scores. These would be inaccurately placed under the State SAT criteria.

442 (62.8%) of the total have
SAT Math scores under 400.
These students would not be eligible for
college level coursework under the State SAT criteria.

v	v
Of these, 127 (28.7%) would not be eligible for college level courses based on their MAPS Algebra score. They would be accurately placed based on the SAT.	315 (71.3%) of these would be eligible for college level courses based on their MAPS Algebra scores. These would be inaccurately placed based on the SAT.

Figure 10

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
First Time in College Fall 1986

Wolfson Campus

Math Section

Total Number on
File With SAT Scores
Under 900 =

26
(2.2% of all First-time in College)

|
|
v

Of all of these

3 (11.5%)

have Math Scores above 400.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

v	v
3 (100%) of these students would be eligible for college level courses based on their MAPS Algebra scores. These would be accurately placed under the State SAT criteria.	0(0.0%) of these would not be eligible for college level work based on their MAPS Algebra Scores. There would be no inaccuracies under the State SAT criteria.

23 (88.5%) of the total have
SAT Math scores under 400.
These students would not be eligible for
college level coursework under the State SAT criteria.

v	v
Of these, 11 (47.8%) would not be eligible for college level courses based on their MAPS Algebra score. They would be accurately placed based on the SAT.	12 (52.2%) of these would be eligible for college level courses based on their MAPS Algebra scores. These would be inaccurately placed based on the SAT.

Figure 11

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
First Time in College Fall 1986

Medical Campus

Math Section

Total Number on
File With SAT Scores
Under 900 =

4
(1.3% of all First-time in College)

Of all of these
0 (0.0%)

have Math Scores above 400.
No students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

4 (100%) of the total have
SAT Math scores under 400.
These students would not be eligible for
college level coursework under the State SAT criteria.

Of these 3, (75.0%) would not be eligible for college level courses based on their MAPS Algebra score. They would be accurately placed based on the SAT.

1 (25.0%) of these would be eligible for college level courses based on the MAPS Algebra scores. This student would be inaccurately placed based on the SAT.

Figure 12

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
(Hypothetical Data Based on Current MDCC Recommendations)

Math Section
(Less Than 210 on MAPS Algebra)

Total Number on
File With SAT Scores
Under 900 =

4726

Of all of these

1470 (31.1%)

have Math Scores above 400.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

1218 (82.9%) of these students would be eligible for college level courses based on their MAPS Algebra scores. These would be accurately placed under the State SAT criteria.

252 (17.1%) of these would not be eligible for college level work based on their MAPS Algebra Scores. These would be inaccurately placed under the State SAT criteria.

3256 (68.9%) of the total have
SAT Math scores under 400.
These students would not be eligible for
college level coursework under the > State SAT criteria.

Of these, 1869 (57.4%) would not be eligible for college level courses based on their MAPS Algebra score. They would be accurately placed based on the SAT.

1387 (42.6%) of these would be eligible for college level courses based on their MAPS Algebra scores. These would be inaccurately placed based on the SAT.

Figure 13

Correspondence Between
the Florida Multiple Assessment Programs and Services (MAPS)
and the Scholastic Aptitude Tests (SAT)
at Miami-Dade Community College
Based on Students Who Wrote Both Tests
(Hypothetical Data Based on Balancing Type I and Type II Error)

Math Section
(Less Than 212 on MAPS Algebra)

Total Number on
File With SAT Scores
Under 900 =

4728

Of all of these

1471 (31.1%)

have Math Scores above 400.
These students would be eligible for college level
courses under the State SAT criteria without writing the MAPS.

1127 (76.6%) of these students would be eligible for college level courses based on their MAPS Algebra scores. These would be accurately placed under the State SAT criteria.

344 (23.4%) of these would not be eligible for college level work based on their MAPS Algebra Scores. These would be inaccurately placed under the State SAT criteria.

3257 (68.9%) of the total have
SAT Math scores under 400.
These students would not be eligible for
college level coursework under the State SAT criteria.

Of these, 2194 (67.4%) would not be eligible for college level courses based on their MAPS Algebra score. They would be accurately placed based on the SAT.

1063 (32.6%) of these would be eligible for college level courses based on their MAPS Algebra scores. These would be inaccurately placed based on the SAT.

References

Advisory Panel on the Scholastic Aptitude Test Score Decline. (1977). On further examination. New York: College Entrance Examination Board.

Boyer, C.M. (1985). Five reports: Summary of recommendations of recent commission reports on improving undergraduate education. Washington D.C.: Education Commission of the States.

Cross, K.P. (1983). Can higher education be equal and excellent too? Current Issues in Higher Education,1982-83(1), 1-3.

Florida Statute 228.072(7)(f), 240.117(7)(f) 6A-10.315.

McCabe,R.H. (1983). Quality and the open-door college. Current Issues in Higher Education, 1982-83(1), 7-11.

National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform. Washington D.C.: U. S. Department of Education.

Study Group on the Conditions of Excellence in American Higher Education. (1984). Involvement in learning: Realizing the potential of American higher education. Washington D.C.: U.S. Department of Education.

Trow, M.A. (1983). Underprepared students at public research universities. Current Issues in Higher Education, 1982-83(1), 16-26.

U.S. Department of Education. (1984). The nation responds: Recent efforts to improve education. Washington D.C.: Author.

ERIC Clearinghouse for Junior Colleges MAY 26 1989